### BestRest Products, LLC

6908 - 220th St. SW Mountlake Terrace, WA 98043

www.bestrestproducts.com info@bestrestproducts.com

(425) 673-1023 fax (425) 673-0502

### PeqPacker™

Auxiliary Fluid Carrying System for BMW F800GS, R1100GS, R1150GS, R1200GS. For Solo Riding ONLY

Thank you for purchasing a BestRest **Peg-Packer™**. We truly appreciate every order. If you have problems with the installation please call us at the number above or send us an email. May the Lord God bless you, watch over you, and keep you safe as you travel the world on your motorcycling adventures.

David & Judy Petersen

### Safety & Fuel Hazard Warnings

# Please read these warnings. They're for your safety and they're very important.

Installing this product incorrectly could result in a fire or explosion leading to serious bodily injury or death to you or others.

Using this product other than as described and approved by BestRest could result in a fire hazard leading to serious bodily injury or death to you or others.

Carrying flammable or explosive fluids externally on any vehicle presents an inherent safety hazard. The only truly safe method of carrying fuel is in your vehicle fuel tank.

Carry external fuel only when you anticipate conditions where you won't be able to get gasoline through normal sources.

As soon as your vehicle fuel tank level has been consumed, transfer fuel from the **Peg-Packer™** to your vehicle fuel tank.

In the event of a collision or tip-over, externally mounted containers may leak, burst, vent, or otherwise spill their contents. This may result in a fire hazard leading to serious bodily injury or death to you or others.

If the **PegPacker™** is mounted so that it's wider than your panniers, the Blitz<sup>®</sup> container could be torn from it's mounts and could spill its contents. The Blitz<sup>®</sup> container is not abrasion resistant. If it contacts the road surface the container may spill its contents. This may result in a fire hazard leading to serious bodily injury or death to you or others.

This product is designed for "<u>off road use only</u>". If you choose to use the **PegPacker™** on the streets, you are doing so completely at your own risk.

Read and follow all the safety warnings on the Blitz® container. Read the colored sticker

on the end of the container, and read the embossed warnings on the side of the container.

When refilling the Blitz<sup>®</sup> container, place it on the ground to prevent static charge and sparking that may result in a fire or explosion hazard. Read and follow the safety warnings on the service station fuel pump.

Read all of the instructions before you begin. If you don't have proper tools or lack mechanical experience, DO NOT PROCEED. Take the **PegPacker™** to a qualified mechanic for installation.

If you intend to use the container for potable water, clean the inside with a dish detergent solution and/or disinfectant. Mark the container clearly so it doesn't get mixed up with a fuel container. Don't ever put fuel in a container intended for carrying water. Once you've put fuel in a container, it can NEVER AGAIN be used to carry potable water! Mark water containers with white paint, or wrap white tape around the handle so you don't accidentally mix water and fuel.

The **PegPacker™** is for SOLO riding only. It should never be used when carrying a passenger.

Failure to properly secure the nylon straps could result in the container falling off the motorcycle, resulting in a fire hazard leading to serious bodily injury or death to you or others.

Failure to tighten the nozzle may cause fuel leakage and a fire hazard leading to serious bodily injury or death to you or others.

Do not overfill the Blitz<sup>®</sup> containers. Leave plenty of room in the container for expansion of fuel. Hot weather will cause the gasoline to expand, which may cause the nozzle to leak. Allow for expansion by leaving an air space at the top. The Blitz<sup>®</sup> container has an embossed "SAFE FILL LEVEL". Do not exceed this mark.

When opening a Blitz<sup>®</sup> nozzle, do so slowly to allow vapors to safely escape. If you open the nozzle too quickly, the fuel may spray outward and cause a fire hazard leading to serious bodily injury or death to you or others.

Do not smoke when you are opening, refilling, mounting, or demounting the **Peg-Packer™**. Keep the Blitz<sup>®</sup> container away from any spark, flame, or other ignition source.

Yeah, we know, these are dire warnings, full of doom and gloom. We don't mean to frighten you, but we do want you to clearly understand the risks involved when you carry fuel externally. Use common sense.

BestRest assumes no responsibility for any damages or injuries that may occur as from using this product. Simply stated, you're using this product at your own risk. Your legal rights may vary from state to state, but if you're not willing to assume full and complete personal liability for the safe and proper use of this product, you shouldn't be using it. Return the product to BestRest for a refund. Refer to the return policy slip attached to your sales invoice for return authorization details.

### Installation

Please read ALL of the instructions before you begin. You'll be glad you did.

Tools needed for installation:
10mm box wrench(s)
10mm socket(s)
5mm hex key wrench
File or rasp
Cordless drill and ¼" drill bit
Fine tipped marker
Blue (semi-permanent) thread compound

The **PegPacker™** comes in 1 or 2 gallon sizes. Installation of either size is identical.

The **PegPacker™** can be mounted on the left or right side of the motorcycle. The aluminum shelf has curved slots to allow rotation of the shelf to accommodate the geometry of a motorcycle's passenger footpeg bracket.

There are minor differences between mounting the **PegPacker™** on the F800GS, and mounting on other. We'll cover those differences in the text.

Sort out the parts and identify them.



At upper left is the aluminum shelf.

At far left is the stainless bracket

At lower left is the F800GS tension bar (not needed for BMW 1100/1150/1200GS)

A ziptie encircles the tension bar

At right is the aluminum Blitz<sup>®</sup> carrier (nylon straps not shown)

Other hardware included:

- 2-6x16 hex head screws
- 2-6x40 hex head screws
- 4-6x16 button head screws
- 2-6mm flat nuts
- 6-6mm nylon locknuts
- 2-small washers
- 11-large flat washers
- 2-rubber caps (not shown in photo)
- 1-rubber sheet (not shown in photo)

The **PegPacker™** can be mounted in a HIGH or LOW position, depending on your needs. That's why the stainless bracket has 2 large holes for the footpeg pivot pin, and 3 small holes with threaded fittings. For 1-gallon containers we prefer to mount them in the <u>HIGH</u> position, for 2-gallon containers we use the <u>LOW</u> position.

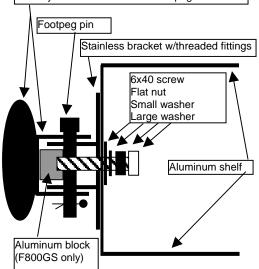
Remove the passenger footpeg. Pull the cotter pin and washer (or remove the spring circlip), and then pull the pivot pin holding the footpeg in place. Push the footpeg inward to release any tension on the pin.



Temporarily fit the stainless bracket in place between the two flanges of the welded footpeg mount. Reinsert the pin to hold the bracket in place. In this condition the bracket is loose and would "flop" or rattle if there wasn't some method of providing tension for the bracket. We have a clever way of solving that problem.

Here's a cross section of the system, looking down from the top of the motorcycle.

Motorcycle frame and welded footpeg U-bracket



The footpeg pin holds the stainless bracket in

place on the welded footpeg bracket. The long screws hold the aluminum shelf to the stainless bracket, AND the ends of the screws also push against the aluminum block. This forces the stainless bracket into tension against footpeg pin. The flat nut acts as a "jamb-nut" which tightens the aluminum shelf against the stainless bracket, and also keeps the system from loosening due to vibration. Simple, huh? It works.

The aluminum block has two countersunk holes to receive the ends of the 40mm screws, to keep the block from moving. The other thru-hole is for a zip tie so you can secure the aluminum block to the motorcycle and prevent loss.

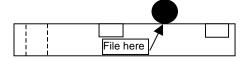
R1100GS-R1150GS-R1200GS, there is no need to use the machined aluminum block. Instead the ends of the screws will push against the inside of the welded footpeg bracket. See the BIG GS installation section on page 5.

For the F800GS, temporarily fit the machined aluminum block in the footpeg bracket and fit

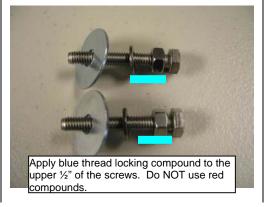
the footpeg pivot pin in place.



If the pin and aluminum bar won't fit, you can file a <u>small</u> notch in the bar, in the middle between the two countersunk holes. You won't need to remove much material, just enough so the pin will fit.



Thread the 2 <u>flat nuts</u> onto the long screws, followed by a small flat washer and finally a large washer. Keep the nuts up near the heads of the screws.



The sequence of nuts and washers is very important. Please pay close attention.

Fit the two screws into two holes of the aluminum shelf. You'll be working with the smaller series of slots. Hold the shelf up to the footpeg bracket and get a general idea of the angles involved, then select the two holes that give you a mounting position that provides a level surface for the Blitz<sup>®</sup> container.



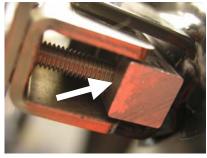
Place the stainless bracket on the aluminum shelf and thread the two screws into the LOWER fittings of the stainless bracket.



Thread the screws about halfway into the stainless bracket, keeping the nuts up against the heads of the screws.

Then place the stainless bracket in motorcycle welded footpeg bracket, and insert the pin thru all 4 holes.

If you're mounting an F800GS system, make sure the aluminum block is in place. The bottom of the block should be even with the bottom of the stainless bracket, and the ends of the screws should penetrate into the countersunk holes.



Before you go any further, reinstall the washer and cotter pin in the end of the foot-

peg pin. If you don't do this now it will be harder to do when the pin is under tension.



Slip the zip-tie thru the hole in the aluminum bar, and secure the bar to the footpeg frame of the motorcycle.

As you tighten the two long screws, keep their length about the same, in other words tighten them equally. As they tighten they will bring tension against the aluminum block, the footpeg pin, and the stainless bracket.

The aluminum block should be parallel to the stainless bracket, as shown in this photo.



As you tighten the long bolts, the tension between the parts will increase and the stainless bracket will become rigid in relation to the welded footpeg bracket. <u>Tighten the bolts gently but firmly</u>. Don't over-tighten or strip the threads. Keep the nuts up against the heads of the screws,

Until now, the aluminum shelf has been free to rotate on the circular holes. Adjust the shelf so the top surface is level to the ground, and tighten the jamb-nuts so the shelf can no longer rotate. The shelf should be tight and rigid at this point.

The stainless bracket has 4 holes, one in each corner. The purpose of these holes is to receive a "dead-man" screw. This screw locks the shelf to the stainless bracket, prevents rotation of the shelf on the bracket, provides an additional fastening point, and improves stability.

From the back of the stainless bracket, mark the hole on the back of the shelf. Remove the shelf and drill the hole, then refit the shelf and place a short screw thru the hole.





Place a large flat washer on a 6x16 screw, pass it thru the shelf and thru the stainless bracket, and a nylon locknut on the end.



The above photo shows the dead-man screw on an F800GS with the shelf in the LOW position.

When mounting the shelf in the HIGH position, the dead-man screw might not have a good drilling point so it might not be usable.

R1100GS, R1150GS, and R1200GS geometries work well with the dead-man screw. We strongly encourage using this option.

### Mounting the shelf in the HIGH position.

Some riders will want to mount the **Peg-Packer™** in the highest position. This maximizes leg clearance in the event you're paddling thru sand or mud.

Fit the stainless bracket to the welded footpeg bracket, using the footpeg pivot pin.

Fit the shelf to the UPPER two holes of the stainless bracket.

Place a short screw (with a large flat washer on it), thru the UPPER rounded hole of the shelf, and thread it into the upper threaded fitting of the stainless bracket.

Place one long screw (with flat nut, small washer, and large washer as shown in the earlier photos) thru the middle threaded hole of the stainless bracket.



Place the second long screw (with flat nut, small washer, and large washer as shown in the earlier photos) thru the lower threaded hole of the stainless bracket.

Now fit the stainless bracket onto the welded footpeg bracket, and fit the footpeg pivot pin thru all 4 holes of the brackets.

If you're mounting an F800GS, use the machined aluminum block as described above. Follow those procedures carefully.

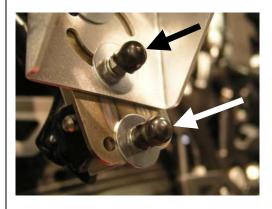
If you're mounting an R1100-1150-1200, skip the aluminum block. It's not needed. The ends of the long screws will contact the welded footpeg bracket and push against it to providing tensioning.

Tighten the two long screws evenly until you achieve tension between the stainless bracket and the welded footpeg bracket.

Adjust the angle of the aluminum shelf to achieve a level surface for the  ${\sf Blitz}^{\it B}.$ 

Tighten the jamb-nuts of the two longer bolts, and tighten the upper short bolt. The shelf should be in tension.

Once the screws and jamb-nuts are tight, fit a rubber cap over the ends of the screws. This finishes off the "look", protects the screws, and protects your leg.



Still awake? Keep reading.

### Mounting the Blitz<sup>®</sup> carrier to the shelf.

Now you can plan how you'll fit the aluminum Blitz<sup>®</sup> carrier to the shelf. Place the Blitz<sup>®</sup> container in the aluminum carrier and set them on the shelf. Rotate and consider how the Blitz<sup>®</sup> can best be mounted, so that it's as close to the motorcycle as possible, and as far to the rear as possible to give you the maximum leg clearance.

<u>IMPORTANT NOTE:</u> For structural and safety reasons it's important to maximize the amount of carrier that is resting on the shelf below. At least ½ of the carrier should be resting fully on the shelf. The photos below show different configurations, each of which places the carrier securely on the shelf.

The next series of photos shows possible installations of a **PegPacker™** on the right side of an F800GS. The container is mounted in the LOW position.



Above is a 1-gallon Blitz<sup>®</sup>. below a 2-gallon.



The next series of photos shows installation of a set of 1-gallon  $\textbf{PegPackers}^{\intercal}$  on an F800GS. The  $\textbf{Blitz}^{\circledcirc}$  containers are mounted in the HIGH position.



Left side above, right side below.



And here's what it looks like from above:



Depending on your panniers and frame geometry, rotate the Blitz® carriers to get the best fit. We prefer to have one corner of the plastic container touching the pannier. This small point of contact prevents the system from vibrating. Use a small piece of foam to prevent the Blitz® from marring your pannier.

Once you've settled on the location of the Blitz®, hold the aluminum carrier in place and have a friend pull the plastic Blitz® container straight up and out of the way - don't allow the aluminum carrier to move in relation to the shelf below.

The bottom of the carrier has a series of holes that MAY align with the circular holes in the shelf. With luck you'll be able to drop 4 screws down thru those holes, but usually you'll have to add some holes. We only hit 1 hole and had to drill 3 more holes.

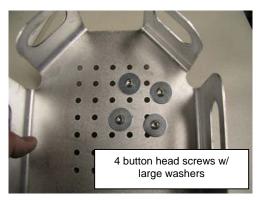


From the underside of the shelf, mark the carrier with a permanent marker. Remove the carrier and drill the necessary holes.

NOTE: For structural and safety reasons it's EXTREMELY IMPORTANT that the carrier be secured to the shelf with a minimum of four (4) screws.

Don't be limited by the holes we provided – maximize the "footprint" and get your holes as wide as possible.

Once your 4 holes are marked and drilled, replace the carrier on the shelf. Place a large flat washer on the 4 button head screws, and drop the screws thru the holes.



On the underside of the shelf, place a large flat washer on each screw, followed by a nylon locknut.



In the above photo, the lower left washer needed to be trimmed to fit inside the shelf.



<u>IMPORTANT NOTE:</u> For structural and safety reasons it's important to use a large flat washer on the top and bottom for each screw!

Tighten the screws and nuts.

To protect the plastic Blitz<sup>®</sup> container from damage caused by the raised head of the button screws, insert the rubber sheet into the carrier. Trim the sheet as needed.



Reinstall the Blitz<sup>®</sup> container in the carrier. Check for proper clearances, and confirm that the **PegPacker™** fittings are tight.

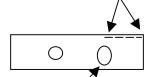
## Mounting to the BIG GS Series R1100GS / R1150GS / R1200GS

There are some minor mounting differences between the F800GS (described in nauseating detail above), and the BIG GS series.

The footpeg pivot pin is a tight fit. You MAY find that while you can get the pivot pin into the top hole of the stainless bracket, it just won't fit into the lower holes. This is because the welds and bends of the footpeg bracket are hitting the corners of the stainless bracket, preventing the bracket from fitting into place.

To correct this issue you can use a rattail file to slightly enlarge or elongate the pivot pin holes in the stainless bracket. Don't file the holes of the welded footpeg bracket itself. Alternatively you can file the ends of the stainless bracket. This drawing shows the area to file:



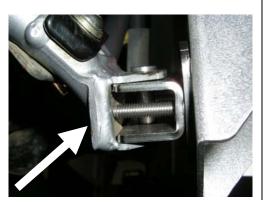


Or, elongate this hole slightly / (exaggerated) It doesn't take much filing to get the part to fit.

Unlike the F800GS system, the BIG GS system relies on only one long screw to provide tensioning between the welded footpeg bracket, the pivot pin, and the stainless bracket.



The lower screw should be fully tightened until it makes contact with the welded bracket.



Depending on your motorcycle and the placement of the welded footpeg bracket, the lower tensioning screw may not provide full tension because the jamb-nut is bottomed between the head of the screw and the small washer. Rather than using a longer screw, remove the small flat washer from the long screw. This will allow the screw to penetrate further. Keep the large flat washer on the screw, along with the jamb-nut. Replace the screw and tighten until the system comes into tension, then tighten the jamb-nut to prevent the shelf from rotating.

The upper long screw won't make contact with anything at the far end. Thread the screw in about ¾ of its length, then tighten the jamb-nut to secure the shelf to the stainless bracket.

Follow the above instructions regarding placement of the Blitz® carrier on the shelf.

Here's photos of the completed system on the R12GS and R12GSA.



Shelf in place on R12GS, above. 1-gallon Blitz<sup>®</sup> in place on R12GS, below.



2- gallon Blitz<sup>®</sup> in place on R12GS, below.





1-gallon Blitz<sup>®</sup> in place on R12GSA, above. 2-gallon Blitz<sup>®</sup> in place on R12GSA, below.



### Nylon Straps

Each **PegPacker™** is supplied with a 2" wide nylon strapping system. This system is designed to provide a safe and secure method of securing the Blitz<sup>®</sup> container to the aluminum carrier, while still enabling easy access when fluids are needed.

This is accomplished by means of metal figure-8 fittings, and a pinch release nylon buckle system. To release the buckle pinch the two sides until the buckle releases. To secure the buckle, push the ends together until both tabs CLICK and lock.

The nylon straps are configured by BestRest, and should not be changed. Should you need to reconfigure the straps for any reason, replicate our system without changes. If a nylon strap is improperly configured it could result in the Blitz® container coming loose from the motorcycle, with potentially serious consequences. See page 1 for the hazards.





The nylon strapping system can be adjusted by moving the straps thru the metal figure-8 fittings.

One of the straps is adjustable at the nylon buckle; the other one is not. The "male" fitting is fixed and cannot be adjusted. The "female" fitting can be adjusted by pulling the strap thru the fitting. To create tension on the straps, grip the loose end of the strap that projects from the "female" portion of the buckle, and pull.

Secure loose ends of the straps by running them thru the figure-8 fittings. Don't leave ends loose or the strap could work itself loose. Loose straps can constitute a safety hazard, refer to page 1.

Every time you ride the motorcycle you should check the straps on the **PegPacker™**. Adjust as necessary.

The nylon straps should be inspected on a daily basis for signs of fatigue, wear, or abrasion. Pay special attention to the points where the straps pass thru and around the openings in the aluminum Blitz<sup>®</sup> carrier.

If the straps get cut, become fatigued or are otherwise damaged the Blitz<sup>®</sup> container could fall from the motorcycle. Refer to page 1 for potential hazards.

Visit our online SmugMug photo repository to view larger images of the photos shown in these instructions:

www.bestrest.smugmug.com

### **Alternative Applications**

The **PegPacker™** can also be used as a camera-mounting platform. The series of rounded holes on the upper shelf will fit with a RAM® ball mount. Instead of fitting a Blitz® carrier, install a RAM® mount and use the system to hold your video camera.

### More Safety and Legal Notices

Off-road travel and/or riding on washboard surfaces will place high stress levels on the mounting system. Off road travel can lead to premature metal fatigue and/or structural failure. Likewise, a tip-over or other collision can cause a similar failure.

To reduce the chance of metal fatigue, do not allow the **PegPacker™** to vibrate or oscillate. You can reduce this vibration by running a second strap (not included) thru the handle of the plastic container and around a frame member, then <u>gently</u> cinching the strap to take out any free movement. Normally this second strap is not needed, but we mention it for informational purposes.

If structural failure of the mounting system occurs, the bracket and container could fall beneath the wheel, interfere with control of the motorcycle, and result in handling or control problems.

It's very important to check the brackets on a daily basis for signs damage, metal fatigue, and/or loose or missing hardware. If these are discovered you should immediately remove the **PegPacker™** from service until repairs can be made.

Do not proceed with product installation unless you are qualified to complete the installation in a safe fashion and as described herein. Do not use these products unless you have read all instructions and understand how these products work and what limitations, if any, they may have.

It is the responsibility of the Consumer to evaluate the suitability of these products for personal use. Consumers must evaluate whether these products meet their needs and whether these products can be mounted and used in a safe fashion. The Consumer accepts full and complete responsibility for selection of products and for mounting and maintenance of these products. The Consumer agrees to follow and abide by all instructions, warnings, recommendations, or other information supplied or published by BestRest Products.

It is the Consumer's responsibility to inspect all screws, fasteners, straps, nozzles, and other fittings on a daily basis, tighten or replace them as necessary, and to regularly inspect the entire system for signs of missing parts, excessive wear, metal fatigue, or imminent failure. Should any of these be observed the assembly should be removed from the motorcycle and not used until inspected and repaired by BestRest.

BestRest Products, it's employees, agents, and owners assume no liability whatsoever for property damage, personal injury or other losses resulting from the Purchaser's failure to properly maintain the products, for unau-

thorized modifications of any kind, for use of unauthorized parts (including bushings, screws, pins, straps or other fasteners), or for use of any BestRest Product in a fashion not intended by BestRest or described as a suggested application in BestRest literature.

Because installation of these products is done by others outside our control, we cannot assume any liability or responsibility whatsoever for improper or unsafe installation, or installation which is contrary to published instructions, for products that are improperly secured or maintained, or that are improperly tightened or otherwise secured, or which are otherwise improper fitted to the motorcycle.

Only authorized, and approved replacement parts, assemblies, nuts, washers, screws, fasteners or fittings may be used when mounting, installing, or repairing any BestRest Product. Authorized replacement parts may be purchased only from BestRest Products. Parts from other sources or vendors are not covered under warranty and will void any Consumer claims against BestRest or others. Any use, modifications, or applications of any BestRest Product, other than those authorized by us in writing, are specifically prohibited.

BestRest products are warranty against defects in workmanship or materials for 90 days after purchase by the original retail customer. **PegPackers™** that have been modified by the consumer are not covered under warranty.

Warranty does not cover damage caused by collision or accident.

**PegPackers™** that have been drilled or mounted are not eligible for return.

Blitz<sup>®</sup> containers that have been filled with any type of fluids, including fuel or water, are not eligible for return.

For legal disclosures and a description of our warranty, please refer to our website:

#### www.bestrestproducts.com

### www.pegpacker.com

"PegPacker" is a trademark of BestRest Producs, LLC

"Blitz" is a registered trademark of Blitz USA.

The Blitz<sup>®</sup> fuel container nozzle is covered under US Patent #D434,328.

© 2008 BestRest Products LLC. All rights reserved.